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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
07/683,016	04/10/1991	HUY X. NGUYEN	82-2775 CIP2 (4820)	5053

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EXAMINER

JOHNSON, STEPHEN

ART UNIT	PAPER NUMBER
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3641

MAIL DATE	DELIVERY MODE
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04/01/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	07/683,016	NGUYEN ET AL.	
	Examiner	Art Unit	
	Stephen M. Johnson	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,10-13 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,10-13 and 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This Office action is in response to the Rescinding Order as mailed on 7/31/2008. Claims 1-7, 10-13, and 15-27 are active in this application and an action on these claims follows. Claims 8-9 and 14 have been cancelled.

2. Claims 1-7, 10-13, and 15-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 lacks a period. In claim 1, last line, it is not understood as to whether the terminology "initiating/compatibilization agent" is intended to mean (initiating or compatibilization agent) or (initiating and compatibilization agent). Please clarify.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 12-13, 15-20, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harpell et al. (4,748,064) in view of Schneider et al. (4,692,479).

Harpell et al. disclose an impact resistant composite comprising:

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|--|---|
| a) two or more adjacent layers; | prepegs; col. 11, lines 15-32 |
| b) two adjacent fibrous network layers; | col. 10, lines 3-57 |
| c) tensile modulus of at least 950 g/denier; | col. 10, lines 3-8; col. 2, lines 35-68 |
| d) an energy-to-break of 58.5 J/g; | col. 10, lines 3-8; col. 2, lines 35-68 |

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- e) a tenacity of 25.9 g/denier; col. 10, lines 3-8; col. 2, lines 35-68
- f) polyethylene filaments; col. 2, lines 58-68
- g) parallel filament rows; col. 9, lines 23-40
- h) filament rows aligned at 90 degrees to each other; col. 15, lines 61-65
- i) woven or non-woven filaments; col. 4, lines 38-42
- j) a volume fraction of at least 0.4; claims 7-9
- k) at least one additional layer of a glass reinforced polymer; and col. 10, lines 37-64
- m) a polymer blend. col. 10, lines 37-64

Harpell et al. (064) applies as recited above. However, undisclosed is a polymer blend of a thermosetting resin; a thermoplastic resin; and an initiating/compatibilization agent.

Schneider et al. (479) teach a polymer blend of a thermosetting resin (phenolic resins (col. 7, line 43-59; col. 12, lines 36 to col. 13, line 63); a thermoplastic resin (diphenylmethane diisocyanate; col. 14, lines 52-59); and an initiating/compatibilization agent (curing agent or binding agent; col. 15, line 7-18; col. 16, lines 8-29; col. 18, lines 22-36). Applicant is substituting one type of polymer blend matrix material for another in an analogous art setting as explicitly encouraged by the primary reference (see col. 6, lines 1-68 of Harpell et al. (064)) with expected or predictable results (see KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 406 (2007)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Schneider et

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al. to the Harpell et al. composite and have a composite material with a different type of elastomeric matrix material.

5. Claims 10-11 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.

/Stephen M. Johnson/
Primary Examiner, Art Unit 3641

SMJ
March 21, 2011